

**ABSTRACT**

A distributed interconnect and a method is provided for interconnecting electrical components which minimizes coupling inductance and increases bandwidth. The interconnect includes a transmission line with a first and second conductive transmission element. The first conductive transmission element is disposed between a first and second terminal, and has an impedance characteristic that increases from the first terminal to the second terminal. The second conductive transmission element is disposed between a third and fourth terminal, and has an impedance characteristic that increases from the third terminal to said fourth terminal. The conductive transmission elements are furthermore positioned in parallel alignment with respect to each other. A plurality of conductive interconnect elements interconnect the first and second transmission elements and are distributed along the first and second transmission elements and at least interconnect the first terminal to the fourth terminal and interconnect the second terminal to the third terminal. Furthermore, a first port is connected to the first terminal and a second port is connected to a third terminal.